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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/512,145  | 05/10/2005  | David John Moody     | 056258-5079         | 2334             |
| 9629  | 7590        | 10/03/2006           | EXAMINER            |                  |
| MORGAN LEWIS & BOCKIUS LLP<br>1111 PENNSYLVANIA AVENUE NW<br>WASHINGTON, DC 20004 |             |                      | TESKIN, FRED M      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1713                |                  |

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/512,145 | <b>Applicant(s)</b><br>MOODY ET AL. |  |
|                              | <b>Examiner</b><br>Fred M. Teskin    | <b>Art Unit</b><br>1713             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The reply of October 20, 2005, has been entered and obviates the objection and rejections set forth in the prior Office action. Claims 1-5, 7-14 and 16-19 are currently pending and under examination.

Upon further consideration, the previously indicated allowability of claims 6-8, 15 and 16 is withdrawn and the following new grounds of rejection entered.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over W0 00/02953 ("Avecia"), in view of the evidence provided by Greene et al.

As noted in the prior action, Avecia discloses *polymer supports* containing polyoxyalkylenes, which are useful as supports in *solid phase synthesis* (page 1, lines 2-3 and 26-30).

Avecia teaches two alternative procedures for preparing the polymer supports; per the second procedure, the polymer support is "prepared by polymerisation of a monomer comprising a hydroxy(polyC<sub>2-4</sub>alkyleneoxy) moiety, *preferably in which the free hydroxy of the hydroxy(polyC<sub>2-4</sub>alkyleneoxy) moiety is protected with a suitable hydroxy protecting group*, under conditions to *produce crosslinking*. In many such embodiments, a styrene monomer substituted on the phenyl moiety, preferably at the 4-position, by an *optionally protected hydroxy(polyC<sub>2-4</sub>alkyleneoxy) moiety*, is polymerised in the presence of a cross-linking monomer. For example, a polymer support ... can alternatively be prepared by polymerizing styrene and 4-(optionally protected)-hydroxy(polyC<sub>2-4</sub>alkyleneoxy)styrene together with the appropriate crosslinking monomer." (Avecia, page 5, lines 21-33; italics added.) Crosslinking and styrene monomers within claims 10-11 are taught at, e.g., page 3, line 23 to page 4, line 2.

Avecia is deficient only in failing to specifically disclose a hydroxy(polyC<sub>2-4</sub>alkyleneoxy) chain protected with a poly-aryl methane protecting group, e.g., a trityl group.

However, in discussing suitable protecting groups, Avecia states that the groups may be chosen from "any of the groups described in the literature or known to the skilled chemist as appropriate for the protection of the hydroxyl group in question ..." (page 2, lines 27-29). Avecia then enumerates suitable hydroxy protecting groups at page 3, lines 3-9. Included among the listed groups is "phenyl alkyl (for example benzyl) groups"; benzyl also is listed among preferred protecting groups for the terminal hydroxyl group in the hydroxy(polyC<sub>2-4</sub>alkyleneoxy) chain (see page 6, lines 19-20).

Chemically analogous phenyl alkyl groups such as trityl are notoriously well known to the skilled chemist for protecting the hydroxyl group as evidenced by Greene et al (see esp. pages 102-103). In light of this recognized utility and given its close chemical and structural similarity to benzyl, there would have been a reasonable expectation of a poly-aryl methane group like trityl affording equivalent protection to the hydroxyl group of the hydroxy(polyC<sub>2-4</sub>alkyleneoxy)-based monomer of Avecia.

In view of this evidence, it is concluded that those of ordinary skill would have been led to utilize a known phenyl alkyl-protecting group such as trityl for protecting the terminal hydroxyl group in Avecia, and reasonably expect to obtain an equivalently polymerizable monomer.

Accordingly, the subject matter of claims 1-5, 7-14 and 16-19 would have been obvious, *prima facie*, to one having ordinary skill in the art at the time of applicants' invention.

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Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is indefinite due to improper Markush language in the recitation "selected from styrenes ... or acrylamides". "Selected from styrenes ... and acrylamides" is proper; see MPEP 2173.05(h) and *cf.* claim 10.


In view of the new grounds of rejection not necessitated by amendment, this action is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/09-06-06

  
FRED TESKIN  
PRIMARY EXAMINER  
1713